Old English ǣ$_1$ and its Reflexes in Middle English: "Deciphering" the ME Phonology via Machine-Readable Corpora* **

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印刷術が普及していない時代には書物は手書きで作られた写本のみが流通し、中英語音韻史研究においてもこれら唯一の手掛かりを使うことになる。写字生は写本を様々に改変しており、原作から変えられた可能性がある綴字から原作者の音韻体系を再構築することは無理である。そこで、脚韻詩中の脚韻語同士の語源形態を比較し、語源で異なる幹母音を持つペアを見つけだし、その音素融合（merger）から音韻変化を導き出すという方法論を用いる。流通量が限られ高価であった写本はこの時代複数の人々の間で朗読されており、そのため文学作品を韻文で書くことがごく当たり前に行われていた社会背景もあって、他の行と発音を合わせなければならない脚韻語は写字生も改変することが極めて少なかったと考えられるのである。また、この方法が綴字を考慮しないことも重要な点である。

上記の方法は合理的ではあるが、地域方言により複数の変種音素が語源で想定される単語が多数あり、特に方言領域の境界上の地域、他方言地域からの大量の移民が考えられる地域では、そのような複数の方言形を持つ脚韻語は、どの音韻形が脚韻で選択されたのかが

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*古英語 ǣ$_1$ とその中英語での対応音素：機械可読化コーパスによる中英語音韻論の「解読」（遠藤裕昭）

** This is a revised version of the paper presented at the 13th annual meeting of the Japan Society for Medieval English Studies (Western Division) held at Tezukayama Junior College (14 June, 1997), where data and deduction were reported only of *Confessio Amantis*; this time those of the *Canterbury Tales* were added after further expansion and correction of the electronic corpora. I am indebted to Professors Mitsunori IMAI and Hideki WATANABE of Osaka University, Professor Masa T. IKEGAMI of Keio University for their invaluable advice. I alone am responsible for all remaining errors and inaccuracies.

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示されていない以上、脚韻相手の単語の発音を考察する際に参照する対象として機能しないはずである。このような脚韻語からなる脚韻は音素変化を探る目的では「証拠」とは考えにくい。しかし脚韻調査を行った研究文献の中で1980年代に出版された2冊の研究書においては、脚韻の観察という方法を取りながらも、語源音に変種の存在が想定される古英語 ǣ1 の中英語での対応音素を常に/e:/としている。当該語源音の対応音素は従来の研究書では/ɛ:/も英国南西部周辺で有りうると指摘されているが、このことは考慮されていない。筆者は2人の研究者が調査した資料群の中から、拙作の音韻史研究用電子コーパスにある2つの大規模な脚韻詩（*Confessio Amantis, Canterbury Tales*）を用いて ǣ1 を語源音に持つ脚韻語の脚韻相手を調査し、脚韻ペアの組み合わせとその出現数を考察した。その結果、従来の解説書に記述された通り、当該語源音が中英語期に書かれた調査対象において2通りの音素として現れることが実証できた。人間が肉眼で研究する限り、その対象は当該脚韻詩の一部に留まらざるをえなかったのに対し、今回電子コーパスの使用によって全5万行余りの脚韻詩の高速な電子検索・用例収集が可能となった。

1. General Introduction to the Investigation of ME Vowels

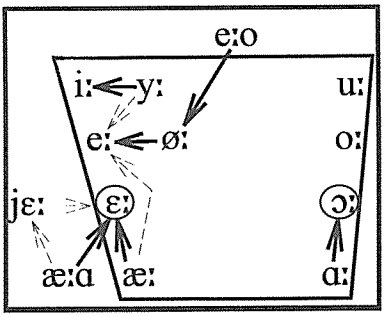

Figure 1: Changes of the long vowels from OE to ME (broken lines: Kentish)

Figure 1 is a schematised view of the changes of long vowels that occurred at the entry to ME in the dialects south of the Humber (Nakao 1985: 89). The vocalic system resulting from these alterations underwent further modifications in several dialects in the late ME period. During the years when the standardisation was not yet firmly established, several dialectal forms of each lexical item coexisted, and pre-

sumably we are able to detect the kinds of vocalic shifts by comparing the phonological tendencies of the ME speakers. The problem is, however, that among the records either description about the spoken language or comments upon the pronunciation of those days are scarcely obtainable.

The quality and quantity of ME vocalic phonemes, regardless of the changes mentioned above, cannot be shown if we solely depend on the spelling information on the manuscripts. It must be emphasised that every document was copied for distribution by scribes in the middle ages, when there were no printing workshops, and that among those "copies" are usually quite a few differences even though they derive from the same source. In such situations, if the original manuscripts are unspecifiable or missing (actually this is the case for most of the mediaeval literary works), the spelling information fructuated by such scribes is not to be employed as phonological evidence. And therefore, we are left with the conclusion that it is logically impossible to judge whether the "changes" represented by the spellings reflect the phonological knowledge of the author or that of the members of the scriptorium reproducing the literature. We cannot even identify the date of the "change", let alone the nature of it.

There is, however, at least a path to depicting ME phonology with such written documents, that is, the utilisation of end-rhymes in verse texts. Since a rhyme would sound awkward in recitation when the stem vowels participating in it were phonemically not the same, comparing the etyma of the participants enables us to capture vowel mergers, and thus, changes of pronunciation. Consider the following couplet from the *Canterbury Tales*, with *do* and *so* rhyming together:

Knight's Tale: 1195/6

And for to pleye as he was wont to *do*;	(<OE dōn "do [inf.]")
For in this world he loved no man *so*,	(<OE swā "so")

The comparison of these rhyme words, or properly speaking, the contrasting of the phonological values in the rhyming position in etymology, leads

us to comprehend that there was a variant of the proto-ME /ɔ:/ which had probably acquired the phonological status of ME /o:/. On the other hand, the next pair of rhyme words is quite difficult to resolve:

General Prologue: 665/6

And knew hir conseil, and was al hir *reed*. (<OE rǣd/rēd "advice")
A gerland hadde he set upon his *heed*, (<OE hēafod "head")

In such a case as above where either or both of the rhyme words frequently had variation in the pre-ME appearances, the quality of the vowels involved in this rhyme is quite obscure, since at least two types of interpretation are possible: (1) *reed* had the dialectal lineage of OE rǣd (the typical West Saxon form ("Southern" in the ME period)) and was recognised as having the same stem vowel in proto-ME as *heed* which was presumably pronounced with ME /ɛ:/. No particular progression is inferred in ME; (2) *reed* was the descendant of OE rēd (the non-West-Saxon norm of the same lexical item) and indicated is the possibility that the proto-ME phoneme /ɛ:/ in *heed* had been raised to /e:/ in some dialect geographically close to the author's own. If the composer of the work (Chaucer, in this case) might lead his/her life in some "mixed lect" area like London and the surrounding zones (Chambers and Trudgill 1980: 132-7), the possibility would be undoubtedly asserted that both types of the recognition of *reed* were existent thereabout and that the phonological variants were consequently available to the poet (See Figure 2 above, based on Jordan-Crook 1974: 5). Accordingly, the rhyme (or accurately, what the

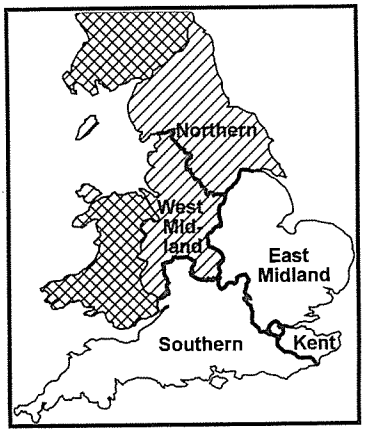

Figure 2: ME Dialects around London and the Home Counties

rhyme informs us) as above is judged as being inconclusive. One must gather evidence while carefully rejecting inconclusive rhymes in his/her collection and explication of data.

To share the discussion in the following sections the reader is notified with some points related with the author's attitudes toward rhyme analyses. Some researchers, including Macaulay (1900: xcviii), Ikegami (1984: 80), Terajima (1985: 140), argue to various degrees that the ME poets even occasionally resorted to grouping rhyme words that had actually different vocalic phonemes in their stems, mostly because of lack of proper candidate/s in the position. Dobson (1968-II: 613 n.2), on the other hand, states about an analyst:

> ... Miss Fischer would regard all the rhymes except those before dentals as inexact or analogical. To this almost traditional explanation of *inconvenient* ME rhymes I can only reply that I do not believe that ME poets, writing at a time when poetry was *recited aloud* and not read silently, would have used 'inexact' or 'analogical' rhymes.[1)]

In this article the present author should like to take Dobson's stance, which means that all the rhyme vowels showing up in the chosen pieces of material shall be regarded as having phonemically the same quantity and quality within the rhyme schemes. As a matter of fact, Dobson's statement seems convincing on the feasibility that if the other variants than the poet's own practice were widely known around him/her, and if he/she was confident that his/her work should be recited with the variant pronunciations just for the intention, the poet was entitled to utilise them. This view appears to be supported by Kökeritz (1978: 13), for example, who assumes Chaucer's ocassional introduction of Kentish forms. Without such recourse, there would be predicaments that possible rhyme options handy in his language were all phonemically wide of the mark and unable to structure rhymes in the posi-

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[1)] Italics are mine.

tions. After all, the "Standard English" was yet to be instituted up to the late ME period, and presumably all the regional and/or vernacular standards were similar in social status to one another. Only one prerequisite for his/her use was a situation that the variants were familiar to his/her supposed range of audience.

Also, when a word having the prototypical ME /ɛː/ rhymes with one with the ME /eː/, the present author judges it as the evidence of /ɛː/ > /eː/, and not the reverse. This is the traditional comprehension sustained by the studies of the phonological changes to this day, verified also as a characteristic of tense (long) vowels by Labov (1994: 172-7) who produces evidence of chain shifts in various languages.

2. OE ǣ₁: its Status in ME in Some Research Literature

As was mentioned in the previous section, variable etyma and inconclusive rhymes are equivocal in judgement, and therefore, shall not contribute to our detection of phonological changes in ME. The OE phoneme symbolised as ǣ that was given for the etymology of ME *reed* in Section 1 is generally called ǣ₁, in comparison with OE ǣ₂. The classification of the two OE phonemes is set according to the difference in their West Germanic (reconstructed) forms and their succeeding phonological behaviour. On the one hand, OE ǣ₁ is defined to have been derived from West Germanic *ā, and is represented with ⟨ǣ⟩ generally in West Saxon OE handwriting, while ⟨ē⟩ typically in non-West-Saxon spellings.[2] OE ǣ₂, on the other hand, is considered as the OE descendant of West Germanic *i*-/*j*-mutated *ai, and it usually shows up in ⟨ǣ⟩ in West Saxon and Anglian manuscripts, while ⟨ē⟩ particularly in Kentish.[3]

This complex situation is further entangled as the OE output ēa is often

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[2] Crowley (1986: 105-8) and Hogg (1992: 62) believe that, in spite of absence of data, the Kentish value ē was later development of OE ǣ (ǣ₁). The discussion in this article shall not be affected by this controversy, since the variation would take place in any way.

[3] The definitions of these terms (ǣ₁ & ǣ₂) have now been accepted and well established in

produced as an output of diphthongisation of these sounds, and it was inherited to the phonological features of the ME dialects (Wyld 1956: 26-45; Crowley 1986: 104-9). The state of affairs is illustrated in Figure 3 below.[4)]

Thus, rhyme analysis requires even more consideration when the etymological forms of the rhyme words in question had multiple patterns, and as such a case we have seen OE ǣ₁. Contrary to this preliminary, two Japanese researchers fairly recently published literature (Ogura (1987a) and Terajima (1985)) in which the possibility/probability of the afore-mentioned ǣ₁ dia-

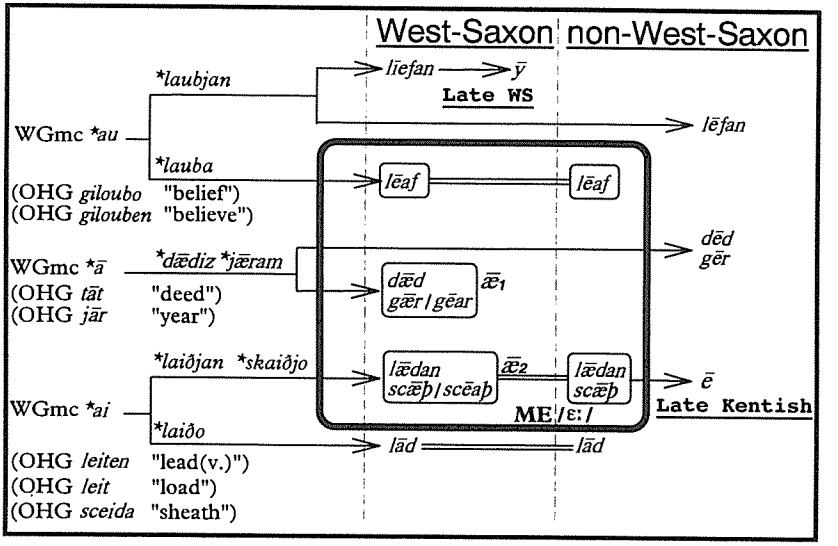

Figure 3: OE long vowels that could become ME /ɛ:/ (from West Germanic to OE)

English studies, while some of the books published in the former half of this century or before, including Jordan (1934), employ different specifications (Crowley 1986: 105ff.). The reader could be cautious about the notations in cross-referencing the research literature quoted in this article.

4) West Germanic *ā developed also into OE ā before ⟨w⟩ / ⟨g⟩ (sāwon "saw [pret. pl.]", lāgon "lay [pret. pl.]") and OE ō before nasals (nōmon "took [pret. pl.]"). Only those OE phonemes which contributed to the variation between ME /e:/ and /ɛ:/ are displayed in the figure.

lectal variation seems completely neglected.[5] And yet, in spite of their rather questionable preconception, they appear to be trusted for their ME data and generalisation also by British researchers (e.g. Jones 1989: 135-6, 140, etc.).

Their assumption "OE ǣ₁ > ME /e:/" used indiscriminately in their rhyme analyses has not been properly justified yet in any research literature. And therefore, their use of it as a reference probe seems highly problematic, just as criticised by Ikegami (1987a; 1987b). According to their judgement, for instance, rhymes of words with OE ǣ₁ and OE ēa should therein prove ME /ɛ:/ > /e:/ (Ogura 1987a: 23-27; Terajima 1985: 46-54). That concept is possibly based on the notion that the court poets like Chaucer and Gower have traditionally been identified as speakers of the East Midland dialect (<Anglian OE) where OE ǣ₁ would most probably be recognised as /e:/ in ME (See Figure 4 below, based on Lass 1992: 40-54; Prins 1966: 11; Nakao 1972: 42-3). Their rationale for the inclination is not shown, and the present

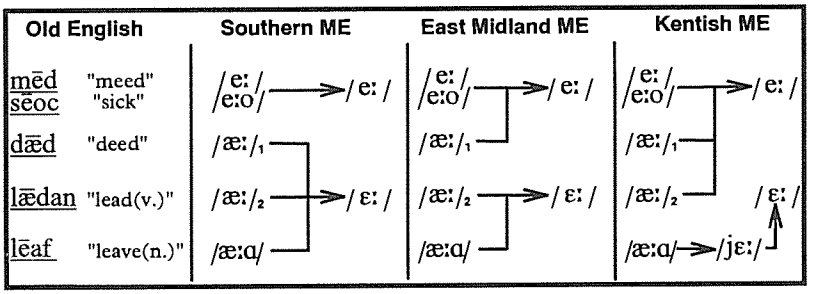

Figure 4: Developmental types of ME /e:/ and /ɛ:/ from OE: classification by the ME dialects around the Home Counties

[5] Apart from this controversial matter, there are severe problems in these books. The rhymes quoted therein contain heaps of self and inconclusive rhymes, as the two analysts have frequently misinterpreted texts possibly without consulting glossaries and dictionaries. In their quotations, for instance, ME verb *be(e)te* is often understood as "beat (<OE bēatan)", among which, in actuality, are those whose etyma are OE bētan "cure". Different comprehension of lexical items should lead to different interpretation of phonological affairs. See Ikegami's questions (1987a; 1987b) and Ogura's defence (1987b).

author can do nothing but guess.

Since there is a report that OE $\bar{æ}_1$ appears in ME rhymes nearly twice more often as /e:/ than as /ɛ:/ (Ikegami 1984: 304-6), it is possible for some ME poets, as a matter of fact, to exploit the variant pronunciations on all occasions; yet, deliberate attestation should have been performed before its application to their rhyme analyses, especially when the texts and/or the authors are localised as those concerned with "mixed lect" areas.[6)]

3. Collection and Re-Examination of Data for the Present Study

To solve the above question the present author will examine two of the verse texts written in the late ME period: *Confessio Amantis* (ante1393; 33,444 lines) and the *Canterbury Tales* (circa1387-1400; 17,410 lines in verse). The two works have already been investigated by those two Japanese scholars; this time, however, the rhymes in them shall be thoroughly studied exactly with regard to OE $\bar{æ}_1$. Unless the target vocalic slots underwent quantitative compaction/shortening before consonant clusters (e.g. *dredde* (<OE drædd̄on "dreaded [pret. pl.]") rhyming with *wedde* (<OE weddian "wed (inf.)") in *Clerk's Tale* 181/2), it is argued that in such words as having their stem vowels derived from OE $\bar{e}$/$\bar{eo}$ the ME speaker would be expected to recognise /e:/ and also that ME words with OE $\bar{ea}$ would as a rule be perceived as having ME /ɛ:/, both irrespective of the dialectal types around the Home Counties (Figure 4 above). Certainly, Anglian Smoothing (e.g. OE $\bar{ea}$ge/$\bar{ea}$ge > ME *ye* "eye", OE $\bar{ea}$c/$\bar{ea}$c > ME *eke* "eke, similarly") must be taken into consideration here in dealing with OE $\bar{ea}$ (Campbell 1959: §225). On the

6) Her response in Ogura (1987b, commenting on Ikegami 1987a) seems to reveal her confusion, indicating that she cannot withdraw her stereotype of the "London English" to contain only the non-West-Saxon (Anglian?) lineage of OE $\bar{æ}_1$. Puzzling is her attitude that while the Anglian lineage /e:/ is always employed of OE $\bar{æ}_1$ for words like ME *dede* "deed", the West Saxon descendant /ɛ:/ is exclusively taken for those like ME *yere* "year" that had undergone diphthongisation in West Saxon OE (See Figure 3; Dobson 1968-II: 633). Inference of the present author is that she looked up items in etymological dictionaries without so much consideration about (West) Germanic reconstructed forms.

other hand, OE ǣ2, similarly to the cases of OE ǣ1, would be variable between ME /e:/ (Kentish) and /ɛ:/ (ten Brink 1899: §§23-5; Curtis 1894-95: §§100-9). Indeed, the two verse texts in our exploration frequently contain such rhymes (e.g. *leere* (<OE lǣ̄ran "learn") rhyming with *heere* (<OE hē̄r "here") in *Canon's Yeoman's Tale* 606/7).

Rhymes related with OE ǣ1 and the phonemes neighbouring in articulation will be hereafter studied in the following three rhyming combinations:

(α) Words with OE ǣ1 and those with OE ē/ēo ("OE ǣ1 > ME /e:/")
(β) Words with OE ǣ1 and those with OE ēa ("OE ǣ1 > ME /ɛ:/")
(γ) Words with OE ēa and those with OE ē/ēo

Rhymes corresponding to the above cases are:

(α) *sede*: *mede* (Etymology — OE sǣ̄d/sē̄d "seed": mē̄d "meed")
(β) *breth*: *deth* (Etymology — OE brǣ̄þ/brē̄þ "breath": dēa̅þ "death")
(γ) *slee*: *me* (Etymology — OE slēa̅n "slay": mē̄ "me")

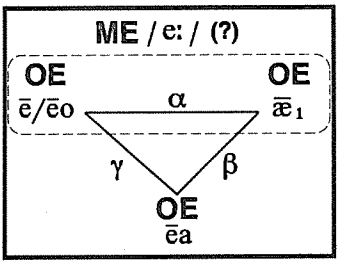

Figure 5: OE ǣ1 words in rhymes

The collection of the γ-type rhymes functions as calibration of the measure, that is, reassurance of the foundation that OE ēa had not turned out to be ME /e:/ in the texts chosen in this research. Provided that the exclusive presupposition "OE ǣ1 > ME /e:/" employed by Ogura (1987a) and Terajima (1985) is valid in the ME rhyming verse that was produced in London and the surrounding areas, rhymes of the α-type would naturally occur significantly more frequently than those of the β-type, and rhymes of the β-type and γ-type should occur equally in number of occurrences, speaking purely of logic on their premises.

As Mackenzie (1926) quotes a considerable number of examples from

London and Eastern materials including *Kyng Alisaunder* and pieces by Lydgate, there is a group of rhyming poems in which words with OE ēa *systematically* rhyme with those with ME /e:/ (<OE ē/ēo/ȳ). Though she expects no instance of such rhymes in Chaucer's and Gower's works (Mackenzie 1926: §10), the poets might be utilising the kind of variants, even only for the rhyming position. If the two texts taken up in this study are the case, the numeric balance assumed by the present author shall be fluctuated. We will discuss these points later.

4. The Use of Electronic Editions as Corpora, and Notes on the Nature of Texts

The source of data for the present study has been built up in the shape of machine-readable corpora which are specially prepared for phonological back-tracking (See Figure 6 below). As the researcher analyses not the spelling but the etymological forms, his/her search target is actually the morphological information of the etyma. If the vowels at the rhyming position in their etyma have been encoded in electronic texts with ASCII characters, one will be able to extract rhyme words whose stem vowels have the etymological quantity and quality of the researcher's target.

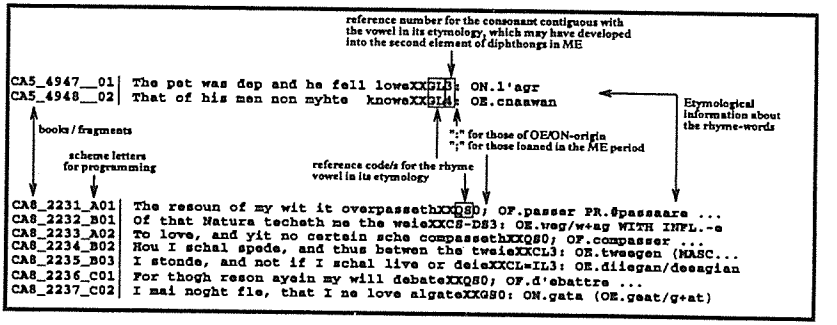

Figure 6: Structure of the machine-readable corpora (Text: *Confessio Amantis*)

In a sense, this is a kind of rhyme index from which rhymes are retrieved with the stem vowel value in etymology as the means of access. In this study rhyme collection was automated by using *GNU* AWK,[7] whose support of convenient built-in functions and regular expressions made this research work a lot easier.

Some comments are necessary about the source of the electronic texts. A machine-readable file of *Confessio Amantis* (the EETS edition: Macaulay 1900) was provided from the Oxford Text Archive, which had been used in the compilation of Pickles and Dawson (1987), and it was encoded into the structure after I had compared and checked spellings of rhyme words with those of the published edition. The electronic corpus of the *Canterbury Tales* has been encoded from Benson (1992), which was OCR-processed[8] from Benson (1987).

5. Evaluation of the Search Output and Concluding Remarks

Table 1 below is the result of the retrieval from the machine-readable corpora.

Table 1: Numbers of rhymes with OE ǣ₁, etc.

Greek letters in Figure 5	(α)	(β)	(γ)
Stem vowels in origin	OE ǣ₁ & OE ē/ēo	OE ǣ₁ & OE ēa	OE ēa & OE ē/ēo
Examples of ME rhymes	*sede: fede*	*rede: dede*	*slee: me*
[GLOSSES]	[SEED/FEED]	[READ/DEAD]	[SLAY/ME]
Confessio Amantis	143	109	1
Canterbury Tales	67	54	6

[7] This is distributed free of charge (software of the Free Software Foundation), obtainable on a lot of Internet FTP servers.

[8] The reader is advised not to think of this electronic edition as an encoded set of *perfect* copies of the published one, for there is a number of inconsistencies in spellings (*h* is often replaced by *b*, for example). OCR is a scribe of the present day, so to speak.

Of the rhymes with OE ǣ$_1$ words in the following etymological categories are excepted from the above calculation:

(1) Those which were loaned in the ME period
(from Old French, Middle Dutch, etc.)
(2) Those which had possibly been affected by Anglian Smoothing
(e.g. ME *eke*< OE ēac/ēc)
(3) Those which had been shortened before various consonant clusters
(e.g. ME *dredde*< OE drǣdde)
(4) Those in which vocalisation of Coda had resulted in diphthongisation
(e.g. ME *key*<OE cǣg)

(1) and (2) are excepted for their variable quality, and (3) and (4) for its quantity. Those in (1) could be imported from more than one source as dialectal variation often existed in the source language, and therefore, the present author is not able to pinpoint the variant used in the rhyme with enough confidence. (4) is a group of such words as their stem vowels are followed by the consonants written with ⟨g⟩ / ⟨w⟩ in OE/ON. It is suspected that after the vocalisation of those consonants, the stem vowels should have already been shortened, often rhyming with ME *pleye, weie* (<OE plegan/plægan "play", weg/wæg "way"), and indeed it is the case of *Confessio Amantis* and the *Canterbury Tales*.

In Section 3 we have examined the possibility of "OE ǣ$_1$ > ME /e:/" and proposed as part of the conditions that the rhymes of the α-type should occur significantly more frequently than those of β-type. But in each of the two texts rhymes of the α-type and β-type seem to appear almost equally in number. In order for this situation to be compatible with their foundation, a large number of words with OE ēa must have undergone raising in the place of articulation to /e:/, that is, rhymes of the γ-type must be equal in number to those of the β-type, since both OE ǣ$_1$ and OE ē/ēo should exist (at least around London in late ME) indiscriminately as /e:/, according to the two researchers.

Yet, the reader would immediately notice in the above table that, compared with the other two types, the rhymes of the γ-type are exceedingly limited in its occurrence. The 1 + 6 rhymes in question are placed beneath in juxtaposition, with checks at the rhyme words with OE ēa:[9]

■ From *Confessio Amantis*

— Book V, 5839/40:

Amende his wrong, it is so gret; ✓ (<OE grēat "great")
For he to lytel of me let, (<OE lēt "let [pret. sg. of lǣtan]")

■ From the *Canterbury Tales*

— Fragment I, 1837/8 (*Knight's Tale*):

That oon of you, al be hym looth or lief, (<OE lēof "beloved")
He moot go pipen in an yvy leef; ✓ (<OE lēaf "leaf")

— Fragment I, 2933/4 (*Knight's Tale*):

Ne how the fyr was couched first with stree, ✓ (<OE strēa "straw")
And thanne with drye stikkes cloven a thre, (<OE þrēo/þrīe "three")

— Fragment I, 3873/4 (*Reeve's Prologue*):

Til it be roten in mullok or in stree. ✓ (<OE strēa "straw")
We olde men, I drede, so fare we: (<OE wē "we")

— Fragment V, 1397/8 (*Franklin's Tale*):

Wel oghte a wyf rather hirselven slee ✓ (<OE slēan "slay")
Than be defouled, as it thynketh me. (<OE mē "me")

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[9] The rhymes of the α-type and β-type are too many to include in this article. The reader is asked to request the rhyme lists at need.

—Fragment VII, 2929/30 (*Nun's Priest's Tale*):

Which causeth folk to dreden in hir dremes ✓ (<OE dr$\bar{e}$am "delight")
Of arwes, and of fyr with rede lemes, (<OE l$\bar{e}$oma "ray")

—Fragment IX, 291/2 (*Manciple's Tale*):

Allas! For sorwe I wol myselven slee!" ✓ (<OE sl$\bar{e}$an "slay")
And to the crowe, "O false theef!" seyde he, (<OE h$\bar{e}$ "he")

No suggestions are provided by Macaulay, the editor of *Confessio Amantis* (EETS), about the one occasion in the text. Referring to these "abnormal" rhymes in Chaucer's work, on the other hand, he suspects that his rhymes may be unreliable at times (Macaulay 1900: cv). As Mackenzie (1926) argues, this type of rhyme frequently and *systematically* occurs in some ME verse texts, and therefore, the words checked in the above-mentioned rhymes might be still in use with ME /e:/ somewhere around Chaucer and Gower (Dobson 1968-II: 635, commenting on one of the rhymes above), though, it seems, there was some difference between their attitudes toward the variants. It is at least possible that Chaucer was even a bit more tolerant and/or accustomed to them.

However, as remarked beforehand, when we consider the number of occasions at which those rhymes of the γ-type take place, this form of realisation can be regarded at best as quite a minor option, and the poets appear to have been very reluctant to employ it, even more obviously in *Confessio Amantis*. It is thus fairly safely deduced that the rarity of the γ-type is on the whole reflected in the two verse texts, through which the status of words with OE $\bar{æ}_1$ automatically proves to be variable, since OE $\bar{æ}_1$ rhymes both with OE $\bar{e}$/$\bar{eo}$ and OE $\bar{ea}$ without significant difference in the numbers of occurrences (even about the same lexical items: *slepe* ("sleep [vb.]") rhymes both with words having OE $\bar{e}$/$\bar{eo}$ and with those having OE $\bar{ea}$, for instance). Hence, its qualitative bilaterality in the ME period is to be acknowledged at least in the two ME works. This of course leads to the conclusion that, as has been recognised by quite a few scholars so far, OE $\bar{æ}_1$ cannot be regarded as a reference

probe of ME /e:/, and that upon citing data and generalisation from the two books, namely Terajima (1985) and Ogura (1987a), the reader is guided to consider their treatment of the double-tongued ǣ1 and to adduce quotations as carefully and selectively as possible.

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